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09/649,097	08/28/2000	Hisashi Ishikura	Q60517	7802

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EXAMINER

NGUYEN, NAM V

ART UNIT PAPER NUMBER

2635

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/649,097

Applicant(s)

ISHIKURA ET AL.

Examiner

Nam V Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,8-14 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 is/are allowed.
- 6) ☒ Claim(s) 1,3-5,8-14 and 17-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### **DETAILED ACTION**

This communication is in response to applicant's response to amendment C which is filed June 23, 2004.

An amendment has been entered and made of record in the application of Ishikura et al. for a "vehicle key system" filed August 28, 2000.

The new set claim 20 is introduced.

Claims 2, 6-7 and 15-16 are cancelled.

Claims 1, 3-5, 8-14 and 17-20 are pending.

### ***Response to Arguments***

Applicant's amendments and argument to the rejected claims are insufficient to distinguish the claimed invention from the cited prior arts or overcome the rejection of said claims under 35 U.S.C § 103(a) as discussed below. Applicant's argument with respect to the pending claims 1, 3-5 8-14 and 17-19, filed June 23, 2004, has been fully considered but they are not persuasive for at least the following reasons.

On page 8, last paragraph, Applicant's arguments with respect to the invention in Flick in view of Scott failed to teach or suggest all the limitations of the vehicle system of claim 1 is not persuasive.

As defined by claim 1, Flick discloses a transmitter (50) (i.e. a remote transmitter) including a fingerprint information capturing means (59) (i.e. a biometric sensor) for

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capturing fingerprint information from a user's fingerprint (column 2 lines 42 to 48; column 5 lines 5 to 13; see Figure 2), and a transmitting means (57) (i.e. a transceiver circuit) for transmitting only the fingerprint information (i.e. fingerprint characteristic) captured by said fingerprint information capturing means (59) (i.e. biometric sensor) (column 8 line 26 to column 9 line 3; see Figure 5);

Furthermore, Flick discloses one type of conventional vehicle security system includes a passive transponder either carried by the key chain or embedded in the ignition key. When the transponder is positioned adjacent the ignition switch, the transponder is inductively powered and transmits a uniquely coded signal to a receiver in the vehicle. When a properly coded transponder is detected, the vehicle engine may be allowed to start, for example. In other words, an ignition or fuel cutoff is normally operative to prevent the engine from starting or running, unless the proper transponder is sensed. Accordingly, vehicle security is increased. In addition, the security system may have multiple transponders capable of disabling the ignition or fuel cutoff to thereby permit operation of the vehicle. These uniquely coded transponders may be added or deleted from the vehicle controller. Unfortunately, the owner of the vehicle may not know that a transponder has been added without authorization (column 1 lines 46 to 64) and Flick discloses the controller 11 preferably comprises remote transmitter verifying means 49 for generating an indication relating to whether a new uniquely coded remote transmitter has been learned by the remote transmitter learning means 47. In addition, the remote transmitter learning means 47 is preferably switchable between a learning or program mode permitting learning of a unique code of a remote transmitter 50, and a secure mode. As would be readily understood by those skilled in the art, the learning mode may be

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entered for a relatively short predetermined time and then automatically revert back to the secure mode to reduce the possibility of unauthorized remote transmitters being learned (column 5 lines 17 to 29; see Figure 1).

Therefore, Flick in view of Scott teach or suggest all the limitations of the vehicle key system of claim 1. The examiner maintains that the references cited and applied in the last office actions for the rejection of the claims are maintained in this office action.

On page 8, last paragraph, Applicant's arguments with respect to the invention in Flick in view of Scott would not have combined in order to increase the security of the portable remote control identification is not persuasive.

In response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. *In re Nomiya*, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 USPQ 209 (CCPA 1971).

Flick discloses that should the user determine that an unauthorized remote transmitter has been added or learned to operate the controller 11, the controller in one embodiment also preferably includes remote transmitter deleting means 48 for permitting deletion of the newly added unauthorized remote transmitter or all of the coded remote transmitters 50 capable of switching the controller between the armed and disarmed

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modes. In one embodiment, the deleting means preferably comprises means for deleting all of the previously learned remote transmitters. All of the previously learned remote transmitters may be deleted based upon entering the learning mode, that is, either when the learning mode is initially entered or when the first remote transmitter is learned, for example. If all of the coded remote transmitters are deleted by the deleting means 48, the authorized transmitters may thereafter be added by the remote transmitter learning means 47 as would be readily understood by those skilled in the art. As described in greater detail below, in another embodiment, transmitter code reset means may be provided to remove a newly learned code and restore a previously learned code (column 7 lines 34 to 52). Clearly, Flick discloses uses of different mode of operation in order to remove unauthorized user to increase security of the portable remote identification vehicle system.

Scott et al. disclose a personal identification device including an identifier storage memory for storing an ID code specific to said transmitter (column 5 lines 16 to 26; column 6 lines 54 to 61; see Figures 1-2 and 8) in order to associate an ID code with the remote controlled device when verifying for permission to configure the automotive remote key entry system.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to have a transmitter including an identifier store in a memory of Scott et al. with the biometric characteristic of Flick with the motivation for doing so would have been to increase the security of the portable remote control identification vehicle system in order to avoid unauthorized users.

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The examiner maintains that the references cited and applied in the last office actions for the rejection of the claims are maintained in this office action.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flick (US# 6,140,939) and in view of Scott et al. (US# 6,484,260).

Referring to claim 1, Flick discloses a vehicle key system for verifying identity of fingerprint information about a user's fingerprint and for controlling pieces of equipment in a vehicle according to a verification result (column 2 lines 16 to 21; see Figure 3), said system comprising:

A transmitter (50) (i.e. a remote transmitter) including a fingerprint information capturing means (59) (i.e. a biometric sensor) for capturing fingerprint information from a user's fingerprint (column 2 lines 42 to 48; column 5 lines 5 to 13; see Figure 2), and a transmitting means (57) (i.e. a transceiver circuit) for transmitting only the fingerprint information (i.e. fingerprint characteristic) captured by said fingerprint information capturing means (59) (i.e. biometric sensor) (column 8 line 26 to column 9 line 3; see Figure 5); and

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A receiver (13) (i.e. a transceiver) disposed in the vehicle (10) (i.e. vehicle security system), including a receiving means (13a) for receiving the fingerprint information transmitted from said transmitting means (57a) of said transmitter (50) (column 8 line 26 to column 9 line 3; see Figures 1 and 5),

a verification means (49 or 82) for verifying the received fingerprint information against a list of pieces of previously stored fingerprint information (column 6 lines 40 to 64; column 8 line 19 to column 9 line 3; see Figure 5), said verification means (49 or 82) including feature verification means for verifying the features extracted from the fingerprint information received from said transmitter (50) against features of an authorized user stored by said receiver; an identifier verification means for verifying the specific identifier received from said transmitter (50) and the specific identifier stored by said receiver (column 8 lines 55 to 66; column 9 lines 21 to 35), and comprehensively determining means for determining whether or not a user manipulating said transmitter (50) is an authorized user and whether or not the manipulation is directed toward the vehicle corresponding to said transmitter (column 8 line 66 to column 9 line 8; column 9 lines 20 to 35); and

a control means (86) (i.e. vehicle remote start controller) for controlling said pieces of equipment (30-37 and 41-46; see Figures 1 and 5) in the vehicle according to verification results from said verification means (column 9 lines 9 to 19).

However, Flick did not explicitly disclose that a transmitter including an identifier storage means for storing an identifier specific to said transmitter. Flick discloses that the transmitter transmits a uniquely coded transponder to the vehicle security systems to



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operate vehicle control system in prior art (column 1 lines 46 to 55; column 2 lines 3 to 13).

In the same field of endeavor of remote control identification system, Scott et al. disclose that a transmitter (6) (i.e. personal identification device) including an identifier storage means (20) (i.e. memory) for storing an identifier (i.e. an ID code) specific to said transmitter (6) and fingerprint template (column 5 lines 16 to 26; column 6 lines 54 to 61; column 8 lines 30 to 39; see Figures 1-2 and 8) in order to associate an ID code with the remote controlled device when verifying for permission to configure the automotive remote key entry system to increase security.

One of ordinary skilled in the art recognizes the need to have a transmitter including an identification codes store in a memory of Scott et al. in using at least one uniquely coded remote transmitter of Flick because Flick suggests it is desired to provide a remote transmitter with at least one uniquely coded stored in a memory and additional biometric characteristic sensor to read and learn a fingerprint would prevent thief of valuables from a vehicle (column 1 line 65 to column 2 lines 14) and a receiver within the vehicle for receiving a signal from the uniquely coded remote transmitter to permit remote control of a function associated with a vehicle (column 9 lines 20 to 35) and Scott et al. teach that a transmitter including an identifier storage means for storing an identifier specific to said transmitter (column 6 lines 54 to 61) in order to verify that the ID code of the transmitter matches the stored ID code of a secure automobile system. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to have a transmitter including an identification codes store in a memory of Scott et al. in using at least one uniquely coded remote transmitter of Flick

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with the motivation for doing so would have been to provide a remote control transmitter has a plurality of verification function to increase security in order to avoid unauthorized users to access to a vehicle control system.

Referring to claim 3, Flick in view of Scott et al. disclose a vehicle key system according to claim 1, Flick discloses wherein said control means comprising engine control means (86) (i.e. vehicle remote start controller) for controlling an engine according to the verification result from said receiver (85) (column 8 lines 55 to 66; see Figure 5), door control means (11) for controlling a lock of doors according to the verification results from said receiver (see Figure 4) (column 8 lines 26 to 45), and a trunk control means (25) for controlling a lock of a trunk according to the verification result of the receiver (see Figure 3) (column 4 lines 53 to 60; column 8 lines 1 to 18).

Claims 4-5, 8-14 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flick (US# 6,140,939) and in view of Scott et al. (US# 6,484,260) as applied to claim 1, and further view of Hsu et al. (US# 6,100,811).

Referring to claim 4, Flick in view of Scott et al. disclose a vehicle key system according to claim 1, Flick discloses wherein said receiver further comprising:

A first operation means (52a-52d) (i.e. input selection switches) for selecting only armed or disarmed modes to a manipulation performed by a user (column 5 lines 5 to 39; see Figure 2),

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A first verification data-selection state storage means (i.e. memory in CPU) for storing the verification data-selection state (i.e. input interface of switches) indicating a selection state of the verification data whose value is set by said first operation means (52a-52d) and a selection state of the verification data received by said transmitter (50) (i.e. remote transmitter) (column 4 lines 47 to 52; column 5 lines 14 to 55), and

A display means (58) for displaying which information to be verified is selected from the fingerprint information or the identifier selected (column 5 line 63 to column 6 line 2).

However, Flick in view of Scott et al. did not explicitly disclose that selecting only the fingerprint information, only the identifier or the both of them according to a manipulation performed by a user.

In the same field of endeavor of remote control vehicle system, Hsu et al. disclose that selecting only the fingerprint information, only the identifier or the both of them according to a manipulation performed by a user (column 2 lines 25 to 47; column 7 lines 27 to 48; see Figure 7) in order to control the operational modes of the remote control system.

At the time the invention, it would have been obvious to a person of ordinary skill in the art to recognize the need for changing the selecting modes of the fingerprint information, only the identifier or combination of both in the switching the controller between armed or disarmed modes of operation of Flick in view of Scott et al. because selecting the modes of the fingerprint information result would improve the reliable and convenient operation of the transmitter that has been shown to be desirable in the vehicle security system of Flick in view of Scott et al.

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Referring to claim 5, Flick in view of Scott et al. and further view of Hsu et al. disclose a vehicle key system according to claim 4, Flick discloses wherein said transmitter (10) further comprising:

A second operation means (20-29) for selecting operational function according to a manipulation performed by a user (column 4 lines 31 to 60; see Figure 1), and

A second verification data-selection state storage means (14) for storing the verification data-selection state indicating a selection state of the verification data (49) whose value is set by said first operation means (52a-52d) and a selection state of the verification data received by said transmitter (50) (column 4 lines 61 to column 5 lines 42; see Figures 1-2).

Referring to claim 8, Flick in view of Scott et al. and further view of Hsu et al. disclose a vehicle key system according to claim 4, Flick discloses wherein an operation unit (30) intended for operating a piece of equipment disposed in said vehicle also serves as said first operation means (30-37 and 41 to 46) (column 5 lines 14 to 32; see Figure 1).

Referring to claim 9, Flick in view of Scott et al. and further view of Hsu et al. disclose a vehicle key system according to claim 8, Flick discloses wherein said equipment (21) (i.e. the sensors of the vehicle) is a navigation device (i.e. movement of the vehicle) (column 1 lines 19 to 30).

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Referring to claim 10, Flick in view of Scott et al. and further view of Hsu et al. disclose a vehicle key system according to claim 4, Flick discloses wherein a pedal (20) disposed in said vehicle also serves as said first operation means (column 4 lines 53 to 60; see Figure 1).

Referring to claims 11-14 and 17-19, Flick in view of Scott et al. and further view of Hsu et al. disclose a vehicle key system according to claims 2-5 and 8-10, Hsu et al. discloses wherein if said verification means (30) (i.e. matching device and check ID) previously stores no fingerprint information (i.e. guest mode), when the received information includes the system-specification identifier (i.e. a secret combination), said verification means performs only the verification of the received identifier against a previously stored identifier (column 2 lines 34 to 47; column3 lines 28 to 37; column 7 lines 27 to 48; see Figure 7).

***Allowable Subject Matter***

Claim 20 is allowed.

Referring to claim 20, the following is a statement of reasons for the indication of allowable subject matter: the prior art fail to suggest limitations a verification means for verifying the received fingerprint information against a list of pieces of previously stored fingerprint information, and for verifying the received identifier against a previously stored identifier, and verification means including feature verification means for

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verifying the features extracted from the fingerprint information received from said transmitter against features of an authorized user stored by said receiver; and identifier verification means for verifying the specific identifier received from said transmitter and the specific identifier stored by said receiver, and comprehensively determining means for determining whether or not a user manipulating said transmitter is an authorized user and whether or not the manipulation is directed toward the vehicle corresponding to said transmitter;

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

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advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam V Nguyen whose telephone number is 703-305-3867. The examiner can normally be reached on Mon-Fri, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Nam Nguyen  
August 30, 2004



MICHAEL HORABIK  
SUPERVISORY PATENT EXAMINER  
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